What Is Claimed Is:

1. A method for managing a defective area on an optical disc of writable once type, comprising:

5   a first step for detecting existence of the defective area within a writing sector after writing a data in the writing sector in a data writing operation;

a second step for writing the data written in the defective area after the writing sector in succession in place of the defective area; and

a third step for writing navigation information on the defective area in

10   succession in replacement after the last writing sector when the data writing is finished.

2. The method as claimed in claim 1, further comprising the step of writing information for access to the navigation information written in succession to the last writing sector in replacement in a lead-in area.

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3. The method as claimed in claim 1, wherein the writing sector has a recording size equivalent to one, or more than one physical track, or cluster set in advance for periodic detection of the defective area.

20   4. The method as claimed in claim 1, wherein the defective area is detected in

clusters.

5. The method as claimed in claim 1, wherein the navigation information is defect list information, including positional information on the defective area, and positional information on the data written in succession to a relevant writing sector.

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6. The method as claimed in claim 2, wherein the information for access to the navigation information is written as disc definition structure information in the lead-in area.

10   7. The method as claimed in claim 2, wherein the lead-in area further includes the navigation information.

8. The method as claimed in claim 1, wherein the optical disc of writable once type is a Blu-ray Disc Write Once, having a spare area assigned to a part of an end part

15   thereof with a recording size variably reducing as the data writing operation is progressed.

9. The method as claimed in claim 1, wherein the optical disc of writable once type is a Blu-ray Disc Write Once, having no separate spare area assigned thereto with

20   a recording size variably reducing as the data writing operation is progressed.

10. A method for managing a defective area on an optical disc of writable once type, comprising:

a first step for detecting existence of the defective area within a writing sector

5   after writing a data in the writing sector in a data writing operation;

a second step for writing the data written in the defective area in a spare area

assigned to a data area in place of the defective area; and

a third step for writing navigation information on the defective area in

succession to the last writing sector when the data writing is finished.

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11. A method for managing a defective area on an optical disc of writable once type, comprising:

a first step for detecting existence of the defective area within a writing sector

after writing a data in the writing sector in a data writing operation;

15   a second step for writing the data written in the defective area in a spare area

assigned to a data area in place of the defective area; and

a third step for writing navigation information on the defective area in the spare

area when the data writing is finished.

20   12. The method as claimed in claim 10 or 11, further comprising the step of

writing information for access to the navigation information written in succession to

the last writing sector in a lead-in area.

13. The method as claimed in claim 10 or 11, wherein the spare area is an inner

5   spare area or an outer spare area of a fixed recording size assigned to a front end or

rear end part of the data area.

14. A method for managing a defective area on an optical disc of writable once

type, comprising:

10   a first step for detecting the defective area, and writing a data written in the

defective area in a spare area or other data area in place of the defective area in a data

writing operation; and

a second step for writing navigation information on the defective area together

with navigation information written before, cumulatively.

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15. The method as claimed in claim 14, wherein the navigation information is

defect list information, cumulatively written together with the defect list information

written before, when a data writing operation having a temporal continuity ends.

20   16. The method as claimed in claim 14, further comprising the step of writing

information for access to cumulatively written navigation information in a lead-in area.